

REMARKS

This Amendment responds to the Office Action dated December 5, 2003, which was restarted December 31, 2003 in which the Examiner objected to the disclosure, rejected claims 1, 2 and 15 under 35 U.S.C. § 102(b) and rejected claims 16 and 17 under 35 U.S.C. § 103.

As indicated above, the specification has been amended to provide detailed descriptions of Figure 8B. Applicant respectfully submits that no new matter has been added. Therefore, Applicant respectfully requests the Examiner withdraws the objection to the disclosure.

Claim 1 claims a waveguide coupler for connecting between rectangular waveguide terminals formed in two dielectric substrates arranged opposite to each other. Each of the dielectric substrates includes a contact region which conducts electricity to a grounded conductor of the waveguide terminal. The contact region is arranged to surround the waveguide terminal at a position opposite to the other contact region when both the waveguide terminals are connected together. At least one electrically conductive joint member is disposed between the opposing contact regions to join together the contact regions. The electrically conductive joint member is formed in a rectangular shape.

Through the structure of the claimed invention having an electrically conductive joint member formed in a rectangular shape and having rectangular waveguide terminals as claimed in claim 1, the claimed invention provides a waveguide coupler with simplified connections which reduced the cost thereof. The prior art does not show, teach or suggest the invention as claimed in claim 1.

As indicated above, claims 1 and 9 have been amended for stylistic reasons. Applicant respectfully submits that the amendment is unrelated to a statutory requirement for patentability and does not narrow the literal scope of the claims.

Claims 1, 2 and 15 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Ulian et al.* (U.S. Patent No. 6,400,241).

Applicant respectfully traverses the Examiner's rejection of the claims under 35 U.S.C. § 102(b). The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, Applicant respectfully requests the Examiner withdraws the rejection to the claims and allows the claims to issue.

Ulian et al. appears to disclose a microwave module and a connection device therefore. (col. 1, lines 5-6) "Coplanar" connection technology inside the microwave module is combined with coaxial type technology on its outlet face. Since a coplanar line and the coaxial type conductive zones on the outlet face interconnect in continuous manner, there is no resulting disturbance in the electromagnetic field, so the passband is not reduced. (col. 1, lines 47-52) The signal propagates inside the modules 30, 32 in the vicinity of the accesses using "coplanar" conductors in Figs. 2-4. The signal is carried by a plane line 34 which is surrounded in the same plane by lateral coplanar conductors 36 and 38 which in the present example are wider and which constitute ground lines. In the vicinity of the connection, the lateral coplanar conductors 35, 36 and 38 are perpendicular to the outer face 40. For connection purposes, the outer face has areas of metallization or indentations to form a conductive central zone 42 and a ring-shaped peripheral zone 44 that is separated from the central zone by an insulating zone 46. The central zone 42 is connected to the end of the signal conductor 34 while the lateral coplanar conductors 36 and 38

are connected to the peripheral zone 34. For the purpose of making connections to the central zone 42 and to the peripheral zone 44, the signal conductor 34 and the lateral coplanar conductors 36 and 38 can be shaped close to the face 40 so as to match the coplanar conductors 34, 36, and 38 geometrically with the pattern 42 and 44. (col. 3, lines 47-67) To connect the areas of metallization of the module 30 to the areas of metallization of the module 32, in the example shown in FIGS. 2a and 2b, a coaxial type assembly member 50 is provided that comprises a central conductor 52 interconnecting the central zones 42 and 42', and an outer cylindrical conductor 54 interconnecting the peripheral zones 44 and 44'. (col. 4, lines 14-20) The embodiment shown in FIGS. 3a and 3b differs from that shown in FIGS. 2a and 2b by the fact that instead of having a coaxial element 50, solder points are used. A central solder point 60 interconnects the central conductive zones 42 and 42' of the faces 40 and 40', while a ring of solder point 62₁, 62₂, etc. ... interconnects the conductive rings 44 and 44'. (col. 4, lines 30-36)

Thus, *Ulian et al.* merely discloses a connection structure of a coaxial line. Nothing in *Ulian et al.* shows, teaches or suggests a connection structure of waveguides. In particular, Applicants respectfully point out to the Examiner that a coaxial line and a waveguide are completely different from each other and the basic modes of electromagnetic waves thereof are physically different. Specifically, the basic mode of a coaxial line is a TEM mode while that of a waveguide is TE or TM mode. Thus, nothing in *Ulian et al.* shows, teaches or suggests a waveguide coupler as claimed in claim 1.

Also, *Ulian et al.* merely discloses a ring of solder points 62 which forms an outer conductor of a coaxial line. Nothing in *Ulian et al.* shows, teaches or suggests

rectangular waveguide terminals and an electrically conductive joint member formed in a rectangular shape as claimed in claim 1. Rather, *Ulian et al.* teaches away from the claimed invention and discloses conductive rings interconnected by a circle of solder points 62.

Since nothing in *Ulian et al.* shows, teaches or suggests a) a waveguide coupler or b) rectangular waveguide terminals including a rectangular contact region and an electrically conductive joint member formed in a rectangular shape as claimed in claim 1, Applicant respectfully requests the Examiner withdraws the rejection to claim 1 under 35 U.S.C. § 102(b).

Claims 2 and 15 depend from claim 1 and recite additional features.

Applicant respectfully submits that claims 2 and 15 would not have been anticipated by *Ulian et al.* within the meaning of 35 U.S.C. § 102(b) at least for the reasons as set forth above. Therefore, Applicant respectfully requests the Examiner withdraws the rejection to claims 2 and 15 under 35 U.S.C. § 102(b).

Claims 16 and 17 were rejected under 35 U.S.C. § 103 as being unpatentable over *Ulian et al.*

Applicant respectfully traverses the Examiner's rejection of the claims under 35 U.S.C. § 103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, Applicant respectfully requests the Examiner withdraws the rejection to the claims and allows the claims to issue.

As discussed above, since nothing in *Ulian et al.* shows, teaches or suggests the primary features as claimed in claim 1, Applicant respectfully submits that claims 16 and 17 would not have been obvious with the meaning of 35 U.S.C. § 103 over

Ulian et al. Therefore, Applicant respectfully requests that the Examiner withdraws the rejection to claims 16 and 17 under 35 U.S.C. § 103.

New claim 18 has been added. Applicant respectfully submits that claim 18 is also in condition for allowance.

Since withdrawn claims 3-14 depend from an allowable claim, Applicant respectfully requests that that these claims be allowed.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason Examiner feels that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, applicant respectfully petitions for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge
our Deposit Account No. 02-4800.

Respectfully submitted,

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